



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/550,962	04/17/2000	Akihiro Yamashita	MAT-7947US	1642

7590

04/02/2002

Lawrence E Ashery
Ratner & Prestia
Suite 301 One Westlakes Berwyn
P O Box 980
Valley Forge, PA 19482-0980

EXAMINER

ABDULSELAM, ABBAS L

ART UNIT

PAPER NUMBER

2674

DATE MAILED: 04/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/550,962

Applicant(s)

Akihiro Yamashita

Examiner
Abbas Abdulsalam

Group Art Unit
2674



☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-15 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2674

DETAILED ACTION

1. Certified copies of foreign documents have been received.

Claim Rejections 35 U.S.C. 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Iwasa et al. (USPN 5978403) in view of Shino et. al. (USPN 6195075).

Regarding claims 1, 5, 9, and 13, Iwasa teaches the arrangement of LED and displaying devices. See col.11, lines 21-27. Iwasa teaches a matrix wiring of an anode wire (2), and a cathode wire (3) arranged in multiple numbers. See col. 7, lines 23-30. Iwasa teaches the arrangement of light emitting laser with multiple anode wiring and the application of voltage V2 to the cathode wires (n8 to n14) as well as the connection of current flowing to the anode wiring. See Fig 7, Fig 11 and col. 10, lines 1-6 and col. 13, lines 30-33. Furthermore, Iwasa teaches the time dependance of the current in simulated matrixing along with pattern of current flowing with respect to time elapsed. See col. 14, lines 59-67, and Fig 15. Iwasa also teaches "m.times.n" laser array required for charging and discharging the capacitance of wiring in different cases. See Fig 10. Moreover, Iwasa teaches a photosensitive material drum (40) and a charger for charging the photo sensitive material drum. See col. 15, lines 35-47 and Fig 16.

Art Unit: 2674

However, Iwasa does teach mathematical relationships for luminance and discharge time under charged versus discharged conditions. Shino on the other hand teaches experimentally obtained graph indicating the relationship between the discharge current I_d , the discharge time, and the luminance. See col. 19, lines 50-64 and Fig 6.

Therefore, it would have been obvious to one having skill in the art to modify Iwasa's image forming process to include shino's graph. One would have been motivated in view of suggestion in Shino that the graph shows the desired relationships under both "charged" and "uncharged" states.

Regarding claim 2, Shino teaches multiple anodes and cathodes forming strips. See col. 5, lines 1-6.

Regarding claim 3-4, 6-8, 10-12 and 14, Shino teaches the determination of maximum value luminance, power and current. See col. 15, lines 65-67. In addition, Shino teaches a relationship between discharge current and luminance on the one hand and a relationship between discharge current and illumination efficiency on the other hand. See Fig 6. Shino also teaches the sustaining discharge as it relates to varying time. See Fig 14.

Regarding claim 15, Shino teaches a plasma display device for image display on TV, advertisement display boards etc. see col. 1, lines 13-15.

Art Unit: 2674

Conclusion

3. The prior art made of record and not relied upon is considered to applicant's disclosure.

The following arts are cited for further reference.

U.S. Pat No. 4,595,862 to Morimoto et al.

U.S. Pat No. 5,565,742 to Shichao et al.

U.S. Pat No. 5,859,508 to Ge et al.

U.S. Pat No. 5,978,404 to Ishihara

Art Unit: 2674

4. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Abbas Abdulsalam** whose telephone number is **(703) 305-8591**. The examiner can normally be reached on Monday through Friday (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard Hjerpe**, can be reached at **(703) 305-4709**.

Any response to this action should be mailed to:

Commissioner of patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand delivered responses should be brought to crustal park II, Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 2600 customer Service office whose telephone number is (703) 306-0377.



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Abbas Abdulsalam

Examiner

Art Unit 2674